

L E T T E R S

ADDRESSED TO THE

A D M I R A L T Y,

ON THE

Naval and Commercial Interests of
this Kingdom.

BY LIEUTENANT TOMLINSON.

Recommended to the MOST SERIOUS ATTENTION

OF THE

L E G I S L A T U R E.

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P R E F A C E

T O T H E

R E A D E R.

THE Letters, which are the subject of this Pamphlet, were written at various times, as the exigencies of the public affairs seemed to require them. They are now *permitted* to be published, from an humble hope that some person of consequence, *zealous* for the public welfare, and a TRUE FRIEND to HIS MAJESTY, may see them, and by that means the labours which gave rise to them, may be attended to; for, if something *more* than the methods that are now practised, both for expediting the building, and preserving the ships when built, be not speedily adopted and put in practice,

practice, it is an undoubted fact, that the sovereignty of the seas will depart from Britain, and what the consequence of that must be, is too shocking to dwell upon; but I am bold to assert, that if my labours be properly attended to, with a ZEAL *adequate to the occasion*, his Majesty may bid defiance to all the maritime powers on earth. And I am further stimulated to suffer this publication, for the following reasons: First, These letters will be a full refutation of some Anti-British speeches lately made in a great assembly, and (if admitted as facts) they will shew, that so far from France alone being able “to render her navy superior to that of Britain,” the whole of our enemies cannot keep pace with the augmentation of the Royal Fleet, and that while *their* ships will assuredly perish in nine or ten years at *most*, I will so season the British ships, as that they shall endure thirty years.

A second,

A second motive is, I read that the Court of Spain has degraded Don Juan de Cordova, for not attacking Vice Admiral Darby's fleet, in Torbay, last September; I forbear to say much on this head, from political motives; but I think it indispensibly necessary, that even the possibility of such an attempt in future should be rendered. (humanly speaking) impracticable. I think it necessary to say further, that it is very possible to add twenty ships of the line *more* than those which the Admiralty expect to launch before September next, and I am satisfied *men may be procured*.

The observant peruser of the following letters will doubtless perceive the *sang-froid* and indifference of the Admiralty's letters to me; that, indeed, dated the 9th of January, 1779, has a plausible appearance of a favourable intention to benefit the PUBLIC by my labours; but their
Lordships

Lordships neglecting to give any reply to my letter of the 23d of the same month proved, that they had no design to favour me, or to benefit the community by *my* labours.

I am, Reader, as far as thou art, a friend to His Majesty King GEORGE, and GREAT-BRITAIN, thy

WELL-WISHER, and

HUMBLE SERVANT,

ROBERT TOMLINSON.

Alton, 15th January, 1782.

L E T T E R S, &c.

No. I.

12 February, 1776.

MY LORD,

A VERY debilitated constitution has lately given me much opportunity for study. I was, for some time, at a loss upon what subject to employ my attention, so as to render my labours beneficial to the public, acceptable to your Lordship, and advantageous to myself. At length, I recollected the general complaint concerning the speedy decay of the ships of the Royal Navy, which have been built for at least twenty-five years past. I was therefrom led to consider, attentively, the various modes which had been practised in seasoning ship-timber, during the last twenty years, and being of opinion that those methods might be improved, I resolved upon applying my studies to that end. I therefore first made diligent search after books to assist me on so intricate and complicated a subject, but I sought in vain. I next endeavoured to come at the knowledge of such persons as might give me some assistance; but in this I was also disappointed. I had, therefore,
B nothing

nothing to rely on but my own remarks upon the operations of nature, my observations upon the general practice of ship-building, with the methods I had accidentally seen practised in his Majesty's yards for seasoning the timber, and what might be further gained by close study and diligent application. By these, my Lord, I humbly hope I have so far succeeded, as to demonstrate, That capital ships may be seasoned and built upon such principles, as will cause them to endure much longer than by the present mode of seasoning; and such ships will possess many advantages which cannot possibly arise from any method now in practice, that I have been enabled to come at the knowledge of.—Though I have not suffered any person to see the said Essay; yet, since I finished it, I have propounded eighteen questions to a very experienced, ingenious, and judicious shipwright, who served many years as a quarter-man in one of his Majesty's yards; and who, being ignorant of my design thereby, his answers to my queries were simple and unreserved; but at the same time (to me) so conclusive and satisfactory, that, I flatter myself, I have not been mistaken in any of my surmises, and that my propositions, if encouraged by your Lordship, will be found to answer every purpose which can reasonably be expected from them.

Since I wrote that Essay, my Lord, I have read a book, printed by order of the Hon. House of Commons, entitled "The Report of a Committee appointed the 11th day of March, 1771, to consider how the Royal Navy might be better supplied with Timber, &c." I expected to find much instruction from that book; especially, as I saw the names of many judicious and experienced

perienced persons, who gave their opinions to that Committee. But how great was my astonishment, when I found so little advanced in favour of seasoning the frames of ships while building," (as to save a quantity of timber is better than to point out where a supply equal to that quantity may be procured) or of what might contribute to cause their long endurance when built. After the nicest examination I am capable of, and a due deliberation upon what I have advanced in the said Essay, I am led humbly to suppose, that its contents will throw more light upon the subject than any thing else which ever appeared publicly, either in theory or practice, that I have been able to attain any knowledge of, from observation, reading, converse, or enquiry. Your Lordship will naturally suppose, that I wish to make the said Essay (in a reasonable degree) instrumental to my own advantage: your Lordship's approbation of it can make it so; and it will need no explanation; your Lordship can comprehend it all, sentence by sentence, unassisted: but I cannot prevail upon myself, my Lord, to submit my Essay to be approved, or condemned, by *any* shipwrights, for many reasons, which it may not be proper to trouble your Lordship with here: but I may assert, that I have not gathered any instruction from them on the subject; but any intelligent shipwright may learn from my Essay much more than is now practised. Your Lordship is quite sensible with what disgust, and perhaps contempt, an essay of that tendency would be received by ship-builders, when they should know that it came from a person not brought up to that business; and they might be led to raise objections merely for the sake of prejudicing your Lordship

against it, though afterwards find it prudent and necessary to practise what they would at first condemn. I am, with the utmost respect, my Lord, your Lordship's most obedient humble servant,

ROBERT TOMLINSON.

No. II.

13th Nov. 1776, Salisbury-court, No. 107.

MY LORD,

THE principle reason of my sending this is, because your Lordship did not condescend to enter into conversation with me, respecting any of the particulars slightly touched upon in the seven numbers, sent in my letter the 8th instant. I apprehend it was, because your Lordship supposed, that No. 5, 6, and 7, promise too much, and that the subject No. 5, has been so well considered by many persons, who must be allowed to know more of it than I can be supposed to know, that, to take my Essay into consideration, would be like admitting, that a man who never saw a ship constructed, could give a better account of her structure than one who had constructed and built many. I confess, my Lord, that such reasoning is natural; but such a conclusion will not always hold good, especially in arts, or sciences, not founded on mathematical principles. But all the theoretical propositions in my Essay, my Lord, are proved, both by many experiments in philosophy, and by the experience of the people in his Majesty's dock-yards. Permit me humbly to ask your Lordship, if ever any of the surveyors of the navy, or master shipwrights, told your Lordship,

Lordship, and demonstrated, that a capital ship built at Deptford, upon the principles of the usual practice of the dock-yards, cannot possibly last seven years in a sound condition? If they have not, I can prove that point to your Lordship incontrovertibly; and I fear nothing can be said more in favour of the ships built at Woolwich, Chatham, or Portsmouth, were they to be strictly searched into. But I am sure, my Lord, that if this assertion was known to those gentlemen, they would deride the author of it, and affirm the contrary. And I believe, that if all the shipwrights in England were to be consulted upon the merits or demerits of my Essay, they would with one voice condemn it, and "like Demetrius, "with the craftsmen of old, raise an uproar "against it," because the profits of their craft would be in great danger of being abridged. But such motives cannot possibly influence the Earl of Sandwich, who, "to a sublime understanding " (*report says*) has added such judicious remarks "and observations upon the subject in question, "as must enable him to be a competent judge in "this matter." If your Lordship should think this letter worthy of any notice, I am ready to wait upon your Lordship when required.

I am, most respectfully, my Lord, your Lordship's most obedient humble servant,

ROBERT TOMLINSON.

*The Right Honourable the Earl of
Sandwich, &c. &c. &c.*

MEMORANDUM.

On the 5th December, 1776, I left a memorial, addressed to Philip Stephens, Esq. on his Majesty's

Majesty's service, part of which was as follows :
 " He has written an Essay upon seasoning timber
 " for ship building, which he humbly supposes
 " will answer every desirable purpose for that
 " end, as may be proved both from many experiments
 " in philosophy and from the experience
 " of the people in his Majesty's dock-yards."
 No answer was sent me to the above.

ROBERT TOMLINSON.

No. III.

26 January, 1778.

MY LORD,

AS the external appearance of public affairs may possibly demand the whole strength of the British navy, whereby so much of the Earl of Sandwich's time may be engaged, as to prevent his Lordship from paying that attention to private letters, which he might otherwise give, I have therefore done myself the honour to address your Lordship, who, perhaps, may have rather more leisure ; and to beg, if you should approve the subsequent parts of these sheets, that you will be pleased, my Lord, to communicate them to the Earl of Sandwich, with such remarks as your Lordship may think proper to make thereon. I would not have assumed this liberty, but from a supposition that your Lordship would think no time better spent, than that which would afford you an opportunity of improving it to the benefit of the Royal Navy. To save time, I will not trouble your Lordship with any further apology, but proceed to what I intend to advance for your Lordship's consideration.

Having

Having been an eye-witness to the very speedy decay of some of the ships built in the royal dock-yards, and hearing what was rumoured concerning others, and my weakly constitution giving me more leisure than I otherwise should have had, I determined upon endeavouring to find out the cause, if possible, and then a remedy; wherein I have succeeded (to my own satisfaction) far beyond my most sanguine hopes or expectations, when I first began; and I also humbly hope, so far, as to afford both information and satisfaction to those who have it in their power to reward my labours.

That Essay, my Lord, contains many remarks upon the operations of nature in her vegetative productions, several experiments by eminent philosophers, many observations upon the practice of the dock-yards, and some opinions of three or four respectable and experienced private ship-builders; which, with what naturally arises from a due consideration of their various effects, has enabled me to draw such conclusions, as I flattered myself would have been acceptable to the Earl of Sandwich; for which reason I wrote twice to his Lordship on the subject, and a memorial to the Board of Admiralty, wherein I mentioned that Essay, but received no answer. It might therefore be suspected, perhaps, that being disappointed, I have been the writer, or dictator of those many paragraphs, which have appeared in the news-papers, respecting the bad condition of the ships of the Royal Navy; but I declare upon my honour that I know nothing of their authors, directly or indirectly. Five persons only have seen my Essay, viz. two noble Lords (staunch friends to Government) the first of whom said, " I am not a competent judge
" of the whole, but it appears to me so reasonable,
" that

“ that if I had any timber to put in use, which
 “ I wished should be durable, I would certainly
 “ follow the methods recommended by your Es-
 “ say, and no other.” The other noble Lord
 said, “ Never part with that Essay until you are
 “ recompensed; if they reject it now, they will
 “ be glad of it ere long, for it is a most va-
 “ luable performance.” The third is an elderly
 Gentleman, of very considerable fortune, and al-
 lowed to have great judgment in most things,
 particularly in timber, and what relates to its use
 in shipping, having had some connections there-
 with; who said, “ Your Essay is very ingenious,
 “ and throws much light upon the subject of
 “ which it treats; and it is a great pity that the
 “ Admiralty do not consider its author so far, as
 “ to encourage him to give it up to them, as I
 “ suppose they would find it much more valuable
 “ than, perhaps, they expect.” The fourth is
 also a Gentleman of fortune, who has paid parti-
 cular attention to the late rapid decay of the ships
 of the Royal Navy, and has endeavoured to find
 out the cause. He communicated some of his
 discoveries to me, and made several judicious re-
 marks upon my Essay, which, if the Earl of S—
 had heard, I am of opinion that his Lordship
 would have wished to see it. The fifth is a very
 honest, ingenious man, who has served at least
 thirty years as a shipwright and an officer, in one
 of his Majesty’s capital dock-yards, who could
 have no self interested views in imposing upon, or
 deceiving me, and he says it is a most valuable
 acquisition, at *this* time. That he has seen many
 plans written by ingenious persons (who were
 brought up in the King’s yards) for the better
 preservation of the ships of the royal navy, but
 all

all those, he said, were partial and trifling; when compared with mine, which he looks upon as a grand aggregate, comprehending more than all those put together which had come under his inspection; and he has since told a friend of mine, that " he believes I was born and brought up in a dock-yard." But, as it is almost a year since the latest of those gentlemen saw it, I have been enabled to improve it with some remarks which were made by the gentlemen. It may possibly, my Lord, be necessary to add, that Mr. Luttrell has not seen the said Essay, nor does he know a single syllable of its contents, neither does any other person who is in any degree connected with him. [New ships of seven years, ditto repaired five years, though with English oak, not so long with foreign.] Your Lordship would perhaps be surprized to hear any man, who is not at least a master shipwright, pretend to know any thing of the condition of the ships of the navy. Permit me then, my Lord, to say, that if the capital ships of the Royal Navy were strictly and narrowly searched into, there is not one of them which has been launched seven years, but if opened, would astonish the beholders; as would also any ship of them that has been repaired five or six years. And from a direct answer to a simple question, I can tell your Lordship the worst part of any ship, without ever seeing her. I naturally suppose that your Lordship will be somewhat surprized at these assertions, and may probably be ready to condemn them as the effect of arrogance in me, or a supposition that they are far more than can be proved; but I can make it as clear to your Lordship, as that the hypotenuse of a plain triangle is longer than the base, or the perpendicular; yea, I can demon-

strate, that it is not possible it should be otherwise, than that every capital ship (built by any methods now in use, which have come to my knowledge) must decay in seven years. I know something of the stress laid upon the depositing of timber under shades, it may be a valuable improvement as far as it goes; but, admitting its utmost utility, that is a very small part of the preparation which is necessary to be used to make ships durable; and it may be totally omitted. Very much remains to be said, but as I would not weary your Lordship's attention, I beg leave to subscribe myself, most respectfully, my Lord, your Lordship's obedient humble servant. I have also written an Essay for employing 20,000 seamen, in times of peace, that will cause a circulation of 900,000*l.* in the kingdom, annually, great part of which will come from abroad, and it will cause a national saving of more than 300,000*l.* a year, and afford Government an opportunity of obliging many of their friends; as, of necessity, there will be at least 50 genteel places of good emolument in the gift of the Admiralty.

ROBERT TOMLINSON.

P. S. Since I wrote the above, a very erroneous opinion has occurred to me, that prevails among the shipwrights leading officers, and which (as it is universally practised in all the royal dock-yards) I am naturally led to suppose is approved at the Navy Board. But it is contrary to reason, and I am assured may be contradicted by their own experience; yet, notwithstanding that, it is persisted in, though extremely injurious to the ships duration. I have considered it at large, and fully refuted it, in my Essay. *January 27th, 1778.*

*Sent the 28th, and left at the Admiralty
about 12 o'clock.*

Soon

Soon after that the Right Hon. the Lord Mulgrave was appointed a Lord Commissioner of the Admiralty, I addressed his Lordship on the same subject, by letter, No. III, in which I endeavoured to induce his Lordship to consider my Essay for seasoning of ship-timber, by representing the certainty, that the ships of the Royal Navy were decaying apace, with some of the leading parts of the said Essay, and the opinions of several judicious persons respecting it; but without mentioning any name. I received no answer. That letter was dated 27th January, 1778.

Reading some speeches made in Parliament, by the Right Hon. Viscount Stormont, and Lord North, I was thereby led to send the following letter to the Admiralty, addressed to Mr. Stephens, on his Majesty's service :

No. IV.

Alton, 5th January, 1779.

SIR,

THE news-papers having informed the public, that the Right Honourable the Viscount Stormont, asserted in the House of Peers, that " The object
 " of the treaty between France and America, is
 " the total destruction of Great-Britain; and,
 " that they had even gone so far as to apportion
 " out the parts of the British possessions which
 " should hereafter belong to France, and of those
 " which should be appropriated to America."
 And the Right Hon. the Lord North, having also informed Parliament, that " America is already
 " ready above fifty millions sterling in debt, and
 " for which they have pawned the lands of their
 C 2 country

"country to the French," I am induced from this information humbly to suppose, that every means which can be made instrumental to humble France, and bring back America to her allegiance, will be extremely serviceable to this empire in general, and the highest beneficence to America. And, as the Royal Navy is the chief instrument (under God) by which we can reasonably hope to attain that desirable end, I humbly suppose, that whatever can promote its preservation and durability, must, at this time, appear to their Lordships worthy of their particular attention.

Having premised thus much, as a reason for my addressing you, Sir, at this busy juncture, I beg leave, most respectfully, to acquaint their Lordships, that the Essay for seasoning ship-timber, which I mentioned to the Lords Commissioners of the Admiralty, in a memorial of the 5th of December, 1776, is now so complete as, that the principles on which it is founded, are proved by a variety of experiments in the Philosophical Transactions, and the Memoirs of the Academy of Sciences at Paris; they are also further confirmed and illustrated by the late and present practice of his Majesty's dock-yards. In my studies on this subject, and my remarks upon the progress of Nature's operations in her vegetative productions, I am fully satisfied, that I have discovered the cause why his Majesty's ships, built and launched from the years 1762 to 1770, decayed so rapidly; and why the ships repaired with Stetin timber have been (according to public report) so very unhealthy, and have given so little satisfaction in their duration. And having discovered the cause of its decay, I can also point out such a preventative, as will assuredly render
that

that timber much more durable, and the British oak almost incorruptible, if a proper attention be paid to the caulking of the ships in due time after launching. My preparation will greatly contribute also to cause the ships to be healthy. It may perhaps be objected, that if the said preparation should be practised in his Majesty's yards, it will be soon public, and thereby equally serviceable to France and Spain as to Britain; but I can easily prove this objection to be futile and nugatory, only there would be an impropriety in my doing it at this time. If their Lordships desire to have the said Essay, they may easily attain it from, Sir, your most obedient humble servant,

ROBERT TOMLINSON.

Philip Stephens, Esq. &c. &c.

In answer to this last letter I received the following :

" Admiralty Office, 9th Jan. 1779.

" SIR,

*" Having laid before my Lords Commissioners
" of the Admiralty, your letter of the 5th instant,
" respecting your invention of a method of sea-
" soning ship-timber, I am commanded by their
" Lordships to acquaint you, that they have sent
" your said letter to the Navy Board, with direc-
" tions to them to correspond with you there-
" upon, if they are of opinion that any utility
" may be derived to the public from your inven-
" tion. I am, Sir, your very humble servant,
(Signed)*

" PHILIP STEPHENS."

*" Lieut. Robert Tomlinson,
at Alton, Hampshire."*

The

The following was, soon after the above, sent from the Navy Board :

“ *Navy Office, 13th Jan. 1779.*

“ Mr. STEPHENS having sent us a letter
“ from you, respecting your invention of a me-
“ thod of seasoning ship timber, and signified to
“ us the direction of the Right Honourable the
“ Lords Commissioners of the Admiralty to
“ correspond with you thereon; and you having
“ referred their Lordships to an Essay for sea-
“ soning Ship-Timber, which you mentioned in
“ a memorial to them of the 5th December, 1776,
“ we desire you will send us the same; and are
“ your affectionate friends,

(Signed)
“ *Lieut. Tomlinson,*
“ *At Alton.*

CHA. MIDDLETON,
J. WILLIAMS,
GEO. MARSH.”

For an answer to the above, see Letter, No. XII. page 37.

In answer to Mr. Stephens's letter, I wrote the following :

No. V.

SIR,

Alton, 21st Jan. 1779.

IN consequence of your letter to me of the 9th instant, I was preparing matter for a correspondence with the Navy Board, when I received a letter from that Board, wherein, after mentioning my Essay for seasoning of Ship-Timber, is added, “ *We desire you will send us the same;*”
that

that letter, Sir, is the cause of my troubling you with this.

When I did myself the honour to address you the 5th instant, relative to my Essay for seasoning of Oak Timber, I was excited thereto, partly from the speeches in Parliament of the Right Honourable the Lords North and Stormont, and partly from an unpleasing long list of ships and frigates lost, taken, or destroyed, which was published in the St. James's Chronicle of the 2d instant. I was also further stimulated to write that letter to you, Sir, from what I have read of the Report of a Committee of the House of Commons, A. D. 1771. which exhibits an unfavourable account of the scarcity of timber fit for ship-building; and I humbly suppose that the said Committee was appointed with a view to shew the necessity of sparing the expenditure of the British oak, by making use of foreign oak for repairs, &c. But, *that* not having answered the end hoped for, and no methods having been proposed to render timber more durable in the fabric of a ship, which were thought worthy of being adopted in general practice, I flattered myself that, when I wrote mine of the 5th current, it would not be looked upon as intruding or trespassing upon their Lordships' time, to make another offer of it, at this critical juncture. I also know the necessity of adopting it (or something similar to it) at this time so well, that I look upon myself indispensibly obligated, both by the allegiance which I owe to my Sovereign, and by my duty to the public, to use every method in my power to get my Essay adopted upon such terms as shall be advantageous to myself, as well as to the public. Because, if such singularly important labours

labours are not publicly acknowledged (with reverence I mention it) others must be discouraged from employing their talents for the public benefit.

When I wrote my letter of the 5th to you, Sir, I did not suppose that my Lords Commissioners of the Admiralty would desire that I should give up an Essay, which has cost me near four years indefatigable attention, when my health would allow me to attend it, and above one hundred pounds expence, without having a reasonable hope that it should turn out of some advantage to myself; therefore, I have not sent my Essay to the Navy Board; and because, was I to suffer it to be canvassed at a Public Board, so many people, besides the Commissioners, must necessarily be acquainted with its contents, that it would be thereby greatly invalidated.

Another reason for my not sending it to that Board is, that I am not a shipwright; and all men have their prejudices, which they cannot easily overcome. I would not presume to be so strenuous in wishing for the adoption of my said Timber Essay, if its apparent value and utility were founded upon my own opinion only; I have consulted persons, whose competency to form a proper judgment thereon, I humbly suppose cannot reasonably be disputed, and they are of opinion that the said Essay merits particular attention.

But perhaps it may be objected as unreasonable to expect that their Lordships should bestow public rewards, without knowing whether the public shall receive any benefit. In answer, I beg permission to say that I have, in times past, rendered such essentially important services to Administration,
and

and to the general community (at a great expence to myself) as I believe were never done before without a proper reward; and which services I would enumerate, but they were sent to you, Sir, for their Lordships information, 5th December, 1776. The annexed letters, which are true copies, I have sent as evidences that I do not wish to impose upon their Lordships relative to what I then advanced. I acknowledge to have said, that, "if their Lordships desire to have the said Essay, they may easily attain it." By which I mean that if their Lordships shall be pleased to honour me with the command of a sloop, as an acknowledgment for my services, which occasioned the two first annexed letters, I will then give my Timber Essay to the Navy Board, or to whom their Lordships shall direct; and that, according to my judgment, will be attaining the said Essay for the public "easily," considering the times; especially, if my past expensive services are also admitted to be put in the same scale.

I am, with due respect, Sir,

Your most obedient humble servant,

ROBERT TOMLINSON.

First Letter referred to above.

"Mr. PORTEN's compliments wait upon
"Lieut. Tomlinson. He is commanded by the
"Earl of Rochford to acquaint him that the Earl
"of Sandwich has this day appointed him to the
"command of a guardship.

"St. James's, 30th November, 1771." (A Copy.)

D

The

The above was sent to me *officially*, superscribed ROCHFORD, and sealed with his Lordship's arms. As this letter appeared to confirm what the Earl of Sandwich had twice told me, namely, that " Lord Rochford had a great regard for me, and " seemed very desirous to serve me," I had no right to doubt the least syllable of the contents of that letter; only I supposed that the Lords Commissioners of the Admiralty had put me upon the List of Captains, and had appointed me to command a guardship, by order, in the absence of the proper captain, to put a little money in my pocket, towards defraying the great expences I had put myself to, in obtaining the various useful informations which I had given to Administration.

After I had waited a full year, in hopes of an answer from the Lords Commissioners of the Admiralty to my memorial of the 5th December, 1776, but in vain, I thought it a duty which I owed to myself, to send a Petition to his Majesty, through the mediation of the Earl of Suffolk, as Secretary of State; and at the same time gave an explanation upon each head, that his Lordship might judge of its propriety. On the 31st of December, 1777, his Lordship did me the honour to send me a letter, of which the following is a copy :

Second Letter above referred to. On his Majesty's Service.

" SIR, *St. James's, 31st December, 1777.*
 " I HAVE perused your Petition with attention, and heartily wish it may meet with
 " success; but as the objects to which it relates
 " belong

“ belong to another department, it would be improper for me to lay it before his Majesty.

“ I am, Sir, your most obedient
“ humble servant,

(Signed)

“ SUFFOLK.”

“ *Lieut. Robert Tomlinson.*”

I would not have troubled you, Sir, with so long a letter, at this busy time, but that I look upon the public's interest, respecting the business herein contained, to be, in a great measure, united with mine.

I am, most respectfully, Sir,
Your obedient humble servant,
ROB. TOMLINSON.

Alton, 23d January, 1779. (A Copy.)

Philip Stephens, Esq. &c. Admiralty-Office.

No answer was sent to the above.

I also answered the Navy Board letter, with proper respect, and laid down a few of the leading parts of my Essay; but they did not make any reply to me.

As I had been favoured with early intelligence, relative to the designs of Spain, I was determined that I would leave no means untried, which could afford me the least hope of getting my Essay adopted, as well for the sake of my country as for any advantage which could arise to myself therefrom, as is manifested from the very trifling favour which I asked, and expressed in my last letter to the Admiralty; I therefore wrote another letter, addressed to the Right Honourable Lord Mulgrave, on his Majesty's service, of which the following is a copy:

No. VI.

MY LORD,

Alton, 25th March, 1779.

When I consider your Lordship's rank in life, honours, employments, and immense fortune, I should not be warranted in supposing that your Lordship can have any other end in view than the preserving of that fortune with those honours, and promoting the true interests of that country, where your Lordship has so very much at stake; especially, when your Lordship's parliamentary abilities are added, that supposition is strengthened; because, those senatorial accomplishments must always be recommendatory to the highest places of honour and dignity, in any government constituted like this.

I therefore beg leave *once* more respectfully to address your Lordship, who, from all those considerations, I must look upon as one of the most proper personages I can apply to on that very important subject, the seasoning of timber, for the preservation of the Royal Navy.

Was my own interest only concerned, your Lordship's inattention to my letter of the 27th of January, 1778, on the same topic, would have been a sufficient discouragement to me from troubling your Lordship a second time; but when the welfare of my COUNTRY is the subject, I would neither omit *supplication* or intercession in *her* behalf, if by *those* I could gain my point. And surely my Lord Mulgrave cannot be offended with such importunity, seeing that it is the country whose prosperity his Lordship is so deeply interested in. And I am further led to
this

this second address, because I am assured that if you should ever see my Essay, it would give your Lordship concern that the Royal Navy was not sooner benefitted thereby; and as I am certain that it is *not possible to confute* me, I will venture to assert, that if this Summer should be suffered to elapse, without my Essay being adopted, an immense quantity of timber will be in a great measure *wasted*, and a prodigious sum of the public money expended *to very little purpose*; I mean, my Lord, from the vast numbers of ships building, both in his Majesty's yards, and by contract, for the Royal Navy.

I heard a report some time past, that it was under consideration to contract for the building of a great number of fir frigates, in Russia, for his Majesty's service. If the Lords Commissioners of the Admiralty should determine on such a measure as expedient, I would engage to *prove* that my Essay would cause them to endure much longer in a serviceable condition than the *oak* frigates endure, which are now built by contract.

I beg your Lordship to give me credit also (until the fact can be disproved) when I further affirm that I can point out the worst part of any ship, without boring her, or even seeing her; and can also prove that there are particular parts of every ship, which has been launched six years, that ought to be renewed, and can assign the causes of such partial decay philosophically; demonstrate the certainty of it by many examples, and recommending an infallible preventive.—*I have seen* so many instances of the *rapid* decay of the capital ships built in his Majesty's yards, that I know the Navy Board *must* be assisted either by my Essay, or by something similar to it. I

was

was of this opinion, when I first addressed your Lordship, and I am now fully convinced of it; for though the depositing of timber under sheds, is a good *partial* improvement, yet there are several essential parts of the practice of the dock-yards, which I can *demonstrate* are contradictory both to reason and experience. But, lest it should be supposed that I have no view in all this to any interests but SELF. and that I want their Lordships to give me a public consideration for what may be of no advantage to the public, I beg permission to reply, that if your Lordship, Mr. Comptroller Middleton, and Mr. Commissioner Brett (to whom I am unknown) do not admit that my Essay on seasoning Timber for Ship building deserves a *better* compensation than even the command of a post ship (after reading the said Essay) I will give the Treasury undeniable security to repay the difference half yearly, between my half-pay and that of a captain.

The respect which is due to the Lords Commissioners of the Admiralty from me, is the cause of my having written so repeatedly and unreservedly on this subject, before I take any other steps to benefit my country, by the Essay which occasions this. I therefore once more beg that your Lordship will do me the honour, and the public the justice, to represent the chief parts of this letter to my Lord Sandwich, and where your Lordship may see it further necessary; because, if favourable notice be not taken of it, I look upon myself obligated by the allegiance which I owe to my Sovereign, and by my duty to the public, to demonstrate to Parliament, from the press, that the ships of the Royal Navy *have* decayed rapidly, *continue* to decay rapidly, and *will* decay rapidly, unless
some

some other methods be used for seasoning the timber than what *are* practised, to render the ships durable. I humbly conceive that your Lordship esteems no time better employed than in perusing whatever has a favourable tendency to promote the good of his Majesty's naval service; more especially when it is of such vast importance as that which is the chief subject hereof; and therefore, having been so prolix already, I will not render myself more tedious, by making an apology, but beg leave to add that

I am, with due respect,

My Lord, your Lordship's

Most obedient humble servant,

ROBERT TOMLINSON.

Right Hon. Lord Mulgrave, &c. &c. &c.

As soon as I heard of the Spanish Manifesto, delivered to his Majesty's principal Secretary of State, I thought it my indispensable duty to make a tender of my essay to the Minister at the head of the marine department, and therefore, in a few days after sent the Right Hon. the Earl of Sandwich a letter, of which the following is an exact copy :

No. VII.

Alton, 22nd June, 1781.

MY LORD,

IF I did not feel most sensibly for the welfare and interests of my King and country, at this critical time, I should not have given your Lordship the trouble of reading another of my letters, after being so repeatedly discouraged, and so long neglected,

glected, though I have given the fullest proofs how assiduouſly and ſucceſsfully I have laboured, at a great expence to myſelf, for the benefit of this kingdom; and, in ſeveral inſtances, have been inſtrumental for great advantages to the public, as well as ſerviceable to Adminiſtration. But the preſent ſituation of national affairs, my Lord, leads me to entreat that your Lordſhip will do me the honour, and the nation the juſtice, to take what I wiſh to offer into conſideration. The preſent ſtate of Great Britain is, in the opinion of moſt people, truly deplorable; and that, ſuch *is not* her ſtate, *can be proved* but by very few. However, though our ſituation may not be envious, I will venture to affirm, my Lord, that it is very far from deſperate; becauſe that as means may be deviſed to preſerve our preſent condition from becoming worſe, until the next Spring, ſo it is not only poſſible, but eaſy for this nation to build at leaſt fifty ſhips of the line of battle; and I am fully ſatisfied that there is a poſſibility of raiſing ten thouſand ſeamen to man thoſe ſhips by that time (or much ſooner, if neceſſary) which will be two hundred for each ſhip; and that number, with ordinary and landmen, are, in the opinion of our moſt experienced flag-officers, quite ſufficient. But this is not all, my Lord; thoſe ſhips, though built ſo haſtily, I can prove, will be in better condition at the end of twenty years, than any of thoſe built for fifteen years paſt, have been, or are, at the end of ſeven years.

I alſo know ſo much of the Spaniſh nation, of their marine, of their reſources, of the ſtate of their American affairs, of their domeſtic ſituation, and alſo how they may be attacked to vaſt advantage, that I can do more towards ſerving the eſſential

sential interests of the British empire, at this time, than your Lordship will credit, until it be manifested. But, to do so, it is necessary that I should be under the protection of Government, not ordinarily, as a subject, but *particularly*, as one who is exerting extraordinary efforts to attain a distinguished and a most desirable end. But, as it has ever has been universally confessed, that "the labourer is worthy of his reward," so I confess to your Lordship that I do expect proper encouragement, though I am not so avaricious but that it is in your Lordship's power to induce me to discover the knowledge to which I have attained; and also to make it instrumental for unutterably greater advantage to the empire than benefit to

Your Lordship's most obedient
humble servant,

(A copy)

ROBERT TOMLINSON.

Right Hon. the Earl of Sandwich, &c. &c. &c.

N. B. It is necessary to observe, that seventeen days only before the date of my last letter to Lord Mulgrave, of the 25th of March, 1779, Sir Horatio Mann declared in full Parliament, that "In every kingdom through which he travelled, and particularly at the Court of Vienna, where he resided, it was the universal cry, Where is the boasted superiority of your fleet? Where is the sovereignty you assume in the ocean? Our *Debility* is the JEST, the WONDER, the GRATIFICATION OF ALL."

And the very day after Lord Sandwich received my letter, dated 22nd June, 1779, Lord North confessed in Parliament (on the 24th June, 1779) that "*There is no reason to suppose, but that the*
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“ House of Bourbon will be able to build ships too expeditiously for us to keep up with her.”

It is requisite to add, that notwithstanding Sir Horatio's declaration, and Lord North's confession, letters containing such important matter, as those referred to, were treated as unworthy of the least notice, by the two noble Lords to whom they were addressed.

No. VIII.

Alton, 15 November, 1780.

MY LORD,

WHEN I experienced that your Lordship did not vouchsafe to give any answer to my letter of the 22d June, 1779, I concluded that it would be in vain for me ever to attempt addressing your Lordship any more. But, as I understand every means are to be used, and every effort to be made to render the next campaign so successful as to give a reasonable hope of obtaining an honourable peace, I am induced thereby, my Lord, once more to beg that you will allow me to submit to your Lordship's consideration some interesting propositions, which, I flatter myself, may be found worthy of notice, being what I have gained partly from observation and experience, and partly from close application and indefatigable attention.

But to be more explicit: do you want ships, my Lord, possessed of every desirable quality, such as swift sailing, salubrious, buoyant (to carry their guns high) and that shall endure *at least three times as long* as by the usual mode of seasoning? I can demonstrate how a very considerable number of such ships may be readily acquired. Is your
 Lordship

Lordship desirous of obtaining a proper number of complete, able seamen for those ships? I can recommend a certain mode of procuring them. Does your Lordship wish to see the sinews of Spain enervated? I humbly hope, and seriously believe, that I can point out to your Lordship how it may be effected.

When peace shall be again restored, I reasonably suppose, my Lord, that there will be many thousand men paid off from the Royal Navy, who are not such complete seamen as will be acceptable to the merchants, and who may (through their necessities) lay the public under some inconveniencies. Would it therefore give your Lordship pleasure to be enabled to retain them in the public service, for some laudable employ? I can evince, my Lord, how twenty thousand of such men may be laudably employed continually, and under the direction of the Admiralty, to the fullest satisfaction of such seamen, greatly to the advantage of the nation, in a commercial sense, and cause large savings of the public money; and which cannot fail to render Great Britain more powerful and respectable, as a maritime kingdom, than it is probable she will be, unless the plan be adopted which I desire to recommend.

An affectionate loyalty to my Sovereign, and a hearty zeal for the prosperity of his kingdoms, have led me to this address, my Lord, and made me regardless of every reflection which may be cast upon me, for offering my labours so repeatedly to your Lordship, notwithstanding the discouragement I have hitherto met with.

I am, with due respect, my Lord, your Lordship's most obedient humble servant,

ROBERT TOMLINSON.
At Alton, Hants.

The copy of this was sent by the General Post the 16th of November, 1780, to the Right Hon. the Earl of Sandwich, Admiralty, London.

On the 20th of December I received the following answer to the above :

“ *Admiralty-Office, December 19, 1780.*

“ SIR,

“ THE Earl of Sandwich having laid before my Lords Commissioners of the Admiralty your letter of the 15th of last month, I have it in command from their Lordships to acquaint you that if you will transmit to the Navy Board any proposals you have to offer for improving the ships of the Royal Navy, their Lordships have no doubt but they will pay proper attention thereto.

“ I am, Sir,

“ Your very humble servant,

(Signed)

“ GEORGE JACKSON, D. S.”

“ *Lieut. Robert Tomlinson, at Alton, Hants.*”

Supercribed “ *On his Majesty's Service, S. D.*

“ *Barkham.*”

Not supposing that the Earl of Sandwich would take any notice of my letter of the 15th of November, as he had deferred answering it so long, I wrote a public letter to the Admiralty, which was sent the 19th of December, so that they received it about the same time I received that, of which the above is a copy.

No. IX

No. IX.

To Philip Stephens, Esq. Admiralty-Office, London,
on his Majesty's service.

Alton, 19th Dec. 1780.

SIR,

Although my Lords Commissioners of the Admiralty did not suffer any answer to be given to my letter of the 23d of January, 1779, addressed to you, "on his Majesty's service," yet my zeal and good wishes for the honour of the Crown, and the prosperity of its kingdoms, will not suffer me to be silent, but compel me again to desire you will acquaint their Lordships, that I have now obtained *uncontrovertible proof*, that my ESSAY for seasoning ship timber, will *answer every purpose* for which it has been written. Indeed, the proofs which I could have given when I first addressed their Lordships, in 1776, were such as philosophy would support, and experience would have *sufficiently* confirmed, so as to have convinced *all*, who might have read it with minds unprejudiced, of the great utility of the said Essay, and the advantage of adopting it*.

I esteem

* If their Lordships should ever think proper to give the said Essay a fair hearing, and a candid impartial discussion, I doubt not, but they will be convinced, that by refusing to give it any attention, when I first offered it to them, the public must unavoidably sustain a loss of, at least, a million of money; I mean from the vast number of ships built (or building) since that æra, whose duration will not be one third of the time, which they would have endured, had they been seasoned agreeable to the mode recommended in my Essay.

I esteem it needful, Sir, to desire also, you will acquaint their Lordships, that I have discovered the *only proper* time for cutting down timber to render it durable; so that by felling it at the season which I can direct, oak timber will endure much longer in the fabric of a ship, than if cut down at any other season: also, that I can convince any gentleman (who wished to be convinced) that the timber for which the Navy Board pays $7\frac{1}{2}$ l. per cent. extra, cannot possibly be so durable as if cut down at a time of the year when it may be purchased considerably cheaper. I might add much more to impress their Lordships with a favourable idea of my labours on this subject; but, to avoid prolixity, allow me, Sir, to declare what I know is impossible to be contradicted; namely, that if ever the nation should be brought into a war unprepared, the Essay in question *assuredly* points out how an incredible number of capital ships *may* be built in one year (or less) if the Ministers, who may then govern the Marine Department, should be hearty in the cause, and those ships will endure in a sound state more than four times as long as those built *hastily*, by the present mode of constructing them; so that the vast expence may be spared of keeping up so very large a fleet in peace, as it hath been thought necessary to keep up in times past. And, that their Lordships may be convinced of my good intentions, I beg leave to add, that in my answer to the Navy-Board's letter, sent January, 1779, I informed the Commissioners, that part of the practice in the dock-yards (in constructing the ships of war) is contrary both to reason and experience, but those *pernicious* modes are still continued; though they must

must infallibly cause a speedier decay than would otherwise result, even from the improper time of felling the timber.

I cannot doubt, but that their Lordships have a secret wish to have these circumstances explained to them; if so, and they should think proper to cause the same to be signified to me, I am ready to impart what cannot fail to give *every well-wisher* to our most gracious SOVEREIGN, and to the prosperity of his kingdoms, unspeakable satisfaction; but the obtaining of that knowledge has cost me a deal of money, beside so much fatigue and anxiety (for near six years) as I would not, *by choice*, go through again for all that their Lordships could give me, or obtain for me: nevertheless, if their Lordships will do to me, as the most moderate of them would wish me to do to him in this case, were our stations and circumstances reversed, I am ready, willing and able to do much more for the Public than this letter contains.

Lastly, I am of opinion it may be *demonstrated*, that the ships built by contract this war, will not endure so long in a sound state, as those built (by contract) last war, and will sooner stand in need of being rebuilt; consequently, a greater expence must attend them; but the cause why they will more speedily decay is a natural one, and such as the Navy Board, *perhaps*, may not at present be able to prevent, though I can avert the bad effects of that natural cause. I am, with due respect, Sir, your most obedient humble servant,

ROBERT TOMLINSON.

P. S. If the timber should be seasoned agreeable to my Essay, it is not of any consequence in what season it is cut down; but, unless my Essay
be

be adopted, the time of felling the oaks is a matter of great importance.

Sent by the General Post, 19th December. 1780.

N. B. No answer has been given to this letter.

No. X.

To Philip Stephens, Esq. Admiralty-Office, London,
on his Majesty's service.

Alton, 20th Dec. 1780.

SIR,

I duly received Mr. Jackson's letter, dated 19th instant, (in answer to my letter to the Earl of Sandwich, dated 15th November) written by command of the Lords Commissioners of the Admiralty, who refer me to the Navy Board, from a belief that they will pay proper attention to any proposals I may have to offer, for improving the ships of the Royal Navy.

I beg leave, Sir, in answer, *respectfully* to observe, that if his Lordship thought my letter merited any notice, I humbly hoped it would have been replied to with stronger significance, especially as the subject of *each* paragraph in that letter, *must* be allowed to be of *much* importance, as the times are so alarming. But, as I ought to suppose, that their Lordships have reasonable motives for that answer, I esteem it my duty to give them substantial reasons why I do not pursue the hint they have given me; and, I am sorry that I cannot justly abbreviate this letter, because I wish to take up as little of your *valuable* time, Sir, as possible.

Was

Was it manifest, Sir, that the Navy Board generally consisted of gentlemen competent of themselves to form an *accurate* judgment of every plan that should be laid before them, on the subject of my Essay; and was it also *reasonable* for me to suppose, that those commissioners are *always* unbiassed and uninfluenced, the affectionate loyalty which I bear to our most gracious Sovereign and his illustrious family, with the ardent zeal that excites me most earnestly to wish the utmost prosperity to my country, would lead me to submit the fate of my Essay unreservedly to their determination, especially at this critical æra, when such an host of potent, formidable enemies are confederate against us, and seem determined, not only to deprive the King of the sovereignty of the seas, but also to reduce his Majesty's hereditary, legitimate empire, and to strip the Crown of its possessions honourably acquired, and justly entailed thereon. But the following reasons, in addition to those I sent their Lordships in my letter, dated 23d January, 1779, are the motives which induce me to excuse myself from submitting any part of my labours to that Board.

First.—About forty years ago, the Navy Board adopted a mode of seasoning the ships (I am informed) which was, that of paying the timbers with turpentine as soon as they were put up in the frame of a ship; but when it became necessary to bore the timbers, in order to plank the fabric, they found them what the shipwrights term fungous (i. e. spongy.) This proves, that neither the projector, nor those commissioners, were acquainted with even the first rudiments of Natural Philosophy.

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Second.—

Second.—A variety of modes have been attended to, and some of them adopted by various Navy Boards, of a much later date; one of which was that of pickling timbers and planks; but that practice could not possibly have been fully considered by any gentleman who adopted it (had they been even but young students in Nature's school) or they would have rejected the very first proposal of such a plan.

Thirdly.—Some *essential* parts of the present practice of the dock-yards (which, I suppose, originate at the Navy Board) are such as have not been *sufficiently* considered, either when first adopted, or since; because it may be easily shewn, that instead of a tendency to preserve the timber, those practices *must* assist to cause a *rapid* decay.—

Fourthly—I know that there was one mode recommended a few years past, which indeed would have been *tedious* in its operations, but could not have failed to have been *favourable* in its consequences; nevertheless it was *rejected*. All these may serve to prove that the Navy Board *has been* very far from having any pretensions to infallibility, for the last forty years; so that I hope their Lordships will not think me wanting in respect to them, when I beg leave to say, that I should do injustice to myself to risk the fate of my Essay on Timber to the determination of any judges, seemingly incompetent to give a complete verdict thereon; and more especially, as several of the most essential of my propositions are entirely new*. I can also produce as good
testimony

* Since I wrote the above Letter to the Admiralty, I have heard the highest and most enviable character of Sir Charles Middleton, the Comptroller of the Navy, and Mr. Surveyor Hunt,

testimony as can be *justly* desired, that the said Essay will *fully* answer the valuable purposes for which it has been written.

I am, with due respect, Sir,

Your most obedient humble servant,

ROB. TOMLINSON.

P. S. I know not any of the Commissioners of the Navy, except Mr. Hunt. and but very little of that Gentleman: therefore, I can have no other motive to induce me to make such free observations, than a view to the *honour* of the *Crown*, and the *prosperity* of its *Empire*.

MEMORANDUM.

The above was not sent until the 4th of January, 1781, for reasons given in the letter (next following) of that date, when they were enclosed and sent together by General Post.

To Philip Stephens, Esq. Admiralty-Office. On his Majesty's service.

No. XI.

Alton, 4th January, 1781.

SIR,

THE letter which accompanies this has been laying by me ever since its date, from an apprehension

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Hunt, respecting their abilities and attention to the public service; but the circumstances above referred to, were transacted prior to *their* being in office. All the other *present* Commissioners of the Navy may be equally valuable in their respective departments, but I have not the honour to know them, or to have any acquaintance with those who do.

hension that as their Lordships have answered mine of the 15th of November last so partially, by taking notice of no more than *one* part of that letter, which contained four important propositions, not one of which was a chimera hastily conceived and rashly adopted, but the result of serious consideration, and (I humbly hope) a competent knowledge of and acquaintance with the leading points expressed therein, and I was further discouraged from sending that inclosed herewith, because their Lordships have not vouchsafed to give any answer to mine of the 19th ultimo. But as a new and powerful enemy is added to those whom this nation had to contend with before, and also having read of the losses and disasters which have befallen his Majesty's ships in the West-Indies, I now think it my duty to send that letter, as an answer to Mr. Jackson's letter therein referred to; and I beg leave to add, Sir, that I am willing at this important crisis to give up all my labours, which have a tendency to the benefit of the ships of the Royal Navy, on such easy terms, as will abundantly manifest that I am more solicitous to promote the public welfare than the interest of him who is, with all possible respect, Sir,

Your most obedient humble servant,

ROB. TOMLINSON.

MEMORANDUM.

This was sent the day of its date (viz. 4th January, 1781) inclosed with that immediately preceding it, dated 28th December, 1780.

To

*To the Commissioners of his Majesty's Navy. On his
Majesty's service.*

No. XII.

Alton, 16th January, 1779.

SIRS,

THE day before I received your letter of the 13th, I had written to the Navy Board, and suppose that the contents of that letter were such as rendered it needless for me to answer yours immediately.

I have considered your request, relative to the sending my Essay for seasoning Ship-Timber, in consequence of Mr. Stephens's letter to you; and in answer I beg leave respectfully to say, that I should be happy to have an opportunity of shewing the said Essay to any, or all the Commissioners of the Navy separately, at their own houses, as private Gentlemen, not doubting that they would do by me, as they would expect me to do by them, were our different situations reversed; but to send it to a Public Board, without a certainty of its being any advantage to myself, would be improper, in the opinion of such of my friends as I have had opportunity to consult, as well as in my own judgment.

I flattered myself, when I first addressed you, Sirs, that I should have had it in my power to have sent you, by this post, such extracts from my said Essay as would have enabled you to form some judgment thereon, relative to its utility, without laying open the whole; but though I
have

have taken some pains for that purpose, I cannot accomplish it. However, I will endeavour to give you some idea, Sirs, of the method in which I have treated the subject, and of some of the principal points treated on.—First.—I have stated five opinions, which I have heard given, repeatedly, as the cause why the ships are not so durable as formerly, and have considered each, so far as to prove that there is an essential error in them all; but have shewn how those errors may be rectified, and have illustrated my arguments by proper instances known to the Navy Board, and also by some philosophical experiments. I have shewn further, that modes of seasoning, which are tedious, are totally unnecessary, as ships may be better seasoned by my methods, which take almost instantaneous effect.

The absurdity and sure destruction of timber, from *boiling*, demonstrated, from a variety of proofs, philosophical and experimental.

That the time of felling oaks, for ship-building, ought not to be in Winter; and the properest season for doing so, incontestably manifested.

The depositing of timber under sheds considered, and wherein its utility is impaired.

A proof, advanced from very respectable and irrefutable testimony, that the British oak will not, *unassisted*, endure half so long in a sound state as it formerly did, though cut down from the same plantations, and treated in every respect in the same manner, both in seasoning the timber, and constructing of the fabric. I *believe* I can account for this philosophically.

That the methods, which my Essay proposes, will answer the purposes for which they have been written, I have *proved*, by such experiments

as

as cannot be confuted ; because they are supported by admired philosophers ; by the opinions of some eminent people in the profession ; by the present experience of his Majesty's dock-yards ; and by some experiments on the operations of Nature, in her vegetative productions, which I have made. My propositions are also confirmed by common experience, and two examples given to demonstrate that. I have also shewn that the scantling of the capital ships may be reduced, if necessary, without diminishing the strength of the ship. I have given proofs positive that nothing will season oak timber thoroughly, in any reasonable time, but the methods which I have laid down.

Some part of the present essential practice in the dock-yards is contradictory both to reason and experience : pardon this assertion, Sirs, for I am certain that your good sense will allow it, when pointed out to you. As to the Stetin oak, I am *convinced* that its durability may be much prolonged, and its unhealthy effects totally removed. I can point out the worst part of any ship without ever seeing her (provided she has not been repaired) and vindicate my reasons by such philosophical proofs as cannot be refuted. There are many other essential circumstances treated on, which I must not mention ; because, if I was to describe the effects only, they would lead to a discovery of the causes ; which, in justice to myself, I ought not to do. One effect, of importance, I may insert ; my method of seasoning will assuredly contribute to make the ships healthy. I am, Sirs, your most humble servant,

ROB. TOMLINSON.

A copy of the above was sent by the General Post, 17th January, 1779.

No. XIII.

Allon, Hants, 14th June, 1781.

MY LORD,

HAVING heard that "the neutral powers of
 " Europe have come to a final resolution not to
 " enter into any treaty for a general pacification,
 " which has not for its basis a free trade with
 " North America." And that "the French have
 " on service, or fit for service,

		Ships
" Of 100 guns, or upwards		6
" Of 80	—	6
" Of 74	—	36
" Of 64	—	25
		—
		72
		—

" making in the whole 72 ships of the line of
 " battle, exclusive of the naval forces of Spain
 " and Holland." And it may be apprehended
 (from a variety of circumstances) that the enemy
 are encreasing their marine with very great ra-
 pidity, insomuch, that my Lord North confessed
 in Parliament, that "there is no reason to sup-
 " pose but that the House of Bourbon will be
 " able to build ships too expeditiously for us to
 " keep up with her." I have also further read,
 that Sir Horace Mann is said to have asserted in
 full Parliament, that "In every kingdom, through
 " which he travelled, and particularly at the
 " Court of Vienna, where he resided, it was the
 " universal cry, Where is the boasted superiority
 " of your fleet? Where is the sovereignty you
 " assume

" assume in the ocean? Our *Debility* is the JEST,
 " the WONDER, the GRATIFICATION of ALL."

These are, in part, what have induced me to address your Lordship at this time, as one of his Majesty's Principal Secretaries of State. And as to the first, my Lord, viz. " The resolution of " the neutral powers, &c." I am satisfied that their resolutions can be fixed on no other basis than a supposition that the maritime powers we are at present engaged with, are quite sufficient to cope with *our* naval armaments, inso-much, that *their* paltry force, thrown into either scale, will so far preponderate as to determine for, or against the future essential interests of Great Britain. And as to the formidable and rapid encrease of the French navy, I can easily account for that; also to counteract the efficacy of such encrease, and to give his Majesty an indisputable, decided superiority over the united force of all Europe, is another motive for this address; which (superiority) I am bold to say, can *never* be effected by the present mode of seasoning the timber, &c. of capital ships. The lists, enclosed herewith, numbered from one to nine, will elucidate this point, and be a stronger proof of the truth of this assertion, than if a large volume of arguments were to be written in support of it. But to prove the rapid decay of the ships of the Royal fleet, would be a very unpleasing task, my Lord, had I nothing to offer as a preservative, from such decay; but having found out a mode of seasoning ship timber *perfectly*, and which may be effected with such expedition, as that his Majesty's navy may be encreased with incredible rapidity, so as to bid defiance to the united efforts of all the maritime powers of Europe to keep

pace with Britain, in the encrease of their fleets. And what (I flatter myself) will be an irresistible temptation to his Majesty's most Honourable Privy Council, to attend to my propositions is, that those ships shall endure, at least, three times as long in a perfect sound state, as ships built by the common modes of seasoning, though those seasoned by my method, should be constructed and finished in a *quarter* part of the time usually taken up for that purpose. And what I beg leave respectfully to offer, will not only be a present unspeakable advantage, but a *perpetual* one; for, if the Royal Navy requires five millions of money every ten years, to keep up a fleet of eighty ships of the line; and if it can be proved (as it assuredly may) that my method will preserve the ships in good condition thirty years instead of ten years, it follows of course that TEN MILLIONS will be saved every thirty years, by adopting my labours. And to this pecuniary advantage, I may safely declare, that those ships will possess many valuable properties which those do not that are built by the common modes. Nor are these vague assertions, my Lord, unsupported, for what I wish to offer, are proved by a variety of experiments in the Philosophical Transactions, by the Memoirs of the Academy of Sciences at Paris, and derive an additional recommendation from the late Dr. Hales's vegetable experiments, &c. as they are also further confirmed by several remarks on the past and present practice of his Majesty's dock-yards, and illustrated by many observations on the progress of Nature's operations, in her vegetative productions, which I have made, and whereby I have demonstrated that, the timber which the Navy Board pays 7l. $\frac{1}{4}$ per cent. extra,

extra, cannot possibly be so durable in the fabric of a ship, as if cut down at a season of the year when it may be purchased considerably cheaper. I have also shown the *causes* of the rapid decay which has attended the capital ships of the navy for at least 30 years past, and laid down an *infallible preventative*: I can also remove the unhealthy effects of the German timber, of which, I am told there is much in store, whereby a considerable sum will be saved to the public. I am aware that it will be natural for your Lordship to say, the British navy is, and has been encreasing for several years past. As any assertion of mine to the contrary, without proof, might justly be deemed impertinent and unsatisfactory. I have taken the trouble to transcribe the enclosed lists for your Lordship's perusal, which cannot be expected to be so accurate as if made out at the Navy Office; yet, I flatter myself, they will be found so near the truth, as to prove that there is an indispensable necessity to adopt some mode which will afford a reasonable hope of preserving the ships much longer in a sound state, than the duration of any of those ships which have been launched at any period for the last 30 years.—The remarks I have made on the different sheets will elucidate each, so as to enable your Lordship to comprehend the whole. Perhaps your Lordship may say, this address should have been to the Admiralty. I am sorry, my Lord, that truth will support me in declaring that I have been using every means in my power, for upwards of five years, to prevail on their Lordships to give me an impartial, candid hearing on this subject, but to no purpose. Therefore, I respectfully entreat your Lordship will do me the honour to be-

lieve me, when I say that. it is a dutiful affection for my Sovereign, a beneficent esteem for my fellow subjects, and a hearty zeal for the prosperity of his Majesty's empire, which have led me to the trouble and expence of acquiring the contents of the sheets. containing the lists which accompany this, and from a hope that they may be instrumental to lead to a discovery, that if the abilities of provident Ministers, supported by very large sums of the public money, *cannot keep up a fleet of eighty ships of the line in good condition*, those sheets may then be further instrumental to lead to the adoption of such a mode of constructing and seasoning the ships, as may give his Majesty a speedy decided superiority over all the maritime powers on earth, and enable his Ministers to bid defiance to all those powers in Europe, who may attempt to divest our most gracious King of the sovereignty on the seas, which the illustrious House of Hanover hath justly claimed ever since its happy accession to the throne of these kingdoms, especially as that dominion (on the seas) has been providentially instrumental to controul the ambition of our imperious neighbours, and to preserve hitherto a happy balance in the power of Europe.

I have done myself the honour to address your Lordship at this time, rather than any other of his Majesty's Ministers, because I have the honour to be known to Sir Stanier Porten, who can testify, that some years past, I rendered the public essential services, and Administration some singular benefits, all of which were attended with considerable expence to myself, but with no expence to Government, also of some risk to my person, and with much fatigue; but, instead of a just recompence, I have had nothing but promises, or *unmerited* disappointments;

appointments ; yet those have neither damped my zeal, nor abated my earnest endeavours to serve the essential interests of my King and country. The only reluctance which I have felt in addressing your Lordship on this occasion is, lest I should thereby unwillingly offend my Lords Commissioners of the Admiralty ; but I flatter myself your Lordship will allow me to be excusable, when I declare that I have, with unremitting, but conscientious importunity, reiterated my solicitations to the Earl of Sandwich, as well as to that Right Honourable Board, entreating (with due respect) that they would be pleased to take my labours under consideration ; and as an incontestible proof that the honour of my Sovereign, and the welfare of my country were my chiefest end and desire thereby, I asked only for a single step of promotion in the line of service, wherein I had spent all the prime of my life, with an irreproachable character, and offered to give any security which might be required, that if what I had to offer should not be allowed to deserve a far greater recompence, the favour I asked should not be of any service to me ; but even this proposal was not replied to. But I am willing to hope that your Lordship requires no other stimulus to excite your utmost endeavours, in this case, than to be reminded, that the foreign Gazettes, by the last mails, inform us, that the French West-India convoy of 31 ships, arrived safe at Corunna the 12th ultimo, under the escort of two frigates, though our St. Eustatia fleet was captured about the same time under a much more respectable convoy ; and the underwriters refused, last Saturday, at Lloyd's, to insure our expected Jamaica fleet, at 40 guineas per centum, and some of his Majesty's ships

ships have been detained in Ireland above a month, from an apprehension that they could not with safety proceed until reinforced. All these circumstances, I humbly suppose, plead strongly, my Lord, for a speedy augmentation of the royal fleet; and I hope they will apologize for my troubling your Lordship with so long an epistle. And, when ships are built, *I know* that seamen may be obtained. Condescend to bear with me, my Lord, while I mention one more particular, which ought not to be overlooked, I mean the necessity Vice Admiral Darby was under to decline a battle in December last with the Comte d'Estaing, on account of the enemy's very great superiority, whereby the French fleet arrived safe in port, with a very rich and numerous convoy; the result of which could not be productive of fewer advantages to France than the following, namely, that it raises the spirits of their nation politically and commercially; it gives the merchants the advantage of that great traffic which the cargoes of such a fleet occasions; it supplies France with many articles that it wanted, at a reasonable price; it gives boldness and confidence to their fleets, and the safe arrival of such a multitude of seamen, in those merchant ships, affords a seasonable and a valuable supply of able seamen to help to man their navy for the ensuing campaign. It also enhances the consequence of France, in the eyes of all Europe, in proportion as such events depreciate Britain, and makes those Courts afraid of our alliance, who may secretly wish us success. On the contrary, if the fleet, under Admiral Darby, had been of such force as to have made it prudent to have fought Monsieur d'Estaing with hope of success, the advantages arising from the defeat of
so

so considerable a part of their navy, with the probable capture of so large a fleet of rich merchant ships, would most likely have been productive of a speedy and an honourable peace, which those advantages (France thereby gained) have most probably removed to a distant æra. But notwithstanding that part of the French naval conduct (above referred to) there happily appears to be a spirit of infatuation, my Lord, in the councils of France, or a strange defect in maritime knowledge, or in marine politics. To prove this, I beg leave to mention but two instances, out of several which might be enumerated; and the first is, that of the campaign in the West-Indies last year. On the 12th of April, 1780, the French had 29 ships of the line. M. de Guichen (I suppose) knew that Sir George Rodney had but 19; when instead of fighting the Admiral with his whole force, he detached four of his best ships to Cape François, and fought Sir George with only 25; whereas, had he brought his whole fleet into action, it is highly probable, that, from the behaviour of part of the C——s of his Majesty's fleet, a defeat must have been the result, in spite of Sir George's personal bravery. The second instance is more recent; which, to represent properly, I beg permission, my Lord, to suppose, that if the fleet of 26 ships of the line, which sailed from Brest the 22d of March last, under M. de Grasse, (with many transports) had gone directly to the Chesapeake, with the 12,000 troops they are said to have had on board, what must have been the consequence! But, instead of doing so, they provisionally detached an ineffectual force after Governor Johnstone, and have sent the others (prisoners say) to Martinique—but I rather think to
Cape

Cape François; because, the sun being nearly vertical in the West-Indies, from the middle of April till past the middle of August, they cannot propose making that station the scene of action, without greatly hazarding the lives of most of their people. It is, therefore, a reasonable supposition that they are chiefly intent upon protecting their commerce, and thereby so protracting the war, as to exhaust the finances of this kingdom; but a speedy augmentation of his Majesty's capital ships would defeat those designs and frustrate all their hopes; which augmentation, to thirty ships of the line, or *more*, I am satisfied may be made by next May; and, in the mean time, I seriously believe, that a plan may be formed for effectually intercepting their homeward bound West-India fleet and convoy, even with our present force, in September next, whether they steer for Spain or France, and that without exposing Britain to any hazardous attack from the absence of his Majesty's fleet.

Should any favourable events fall out this campaign which may lead to a peace, the ability of this kingdom to build such a number of capital ships so very rapidly, when manifested to the world, cannot fail to be in some measure instrumental to obtain better conditions; but should the war be protracted, the command on the ocean must be a very desirable acquisition, and which (in all human probability) cannot fail to be the case, *in perpetuum*, if my labours be attended to. As your Lordship is well known to be very zealous for his Majesty's honour and his people's interest, I humbly suppose that your Lordship esteems no time better employed than in considering whatever has a favourable tendency to promote

mote the good of his Majesty's service, more especially when it is of such vast importance as that which is the chief subject hereof; and therefore having been so prolix already, I will not render myself more tedious by making any further apology, but only beg leave to add, that I am, with all possible respect,

My Lord, your Lordship's

Most obedient humble servant,

ROBERT TOMLINSON.

Right Hon. the Earl of Hillsborough, &c. &c. &c.

P. S. The contents of these sheets have laid by me some time, from an apprehension lest I should give offence, when I mean only to give what appears to me, necessary information. But, I have read a Right Hon. Gentleman's speech on Mr. Fox's late motion in the House of Commons, (as stated in the Gazetteer of yesterday) which holds forth such despondency as leads me to suppose, that it is my indispensable *duty* to send the packet to your Lordship, as I humbly hope its contents will demonstrate, that Great Britain is yet more than a match (*sub Deo*) for all the maritime nations of Europe, if her powers be fully and properly exerted.

19th June, 1781.

N. B. The above was sent by the General Post, this 19th June, 1781, addressed, "To the
" Right Hon. the Earl of Hillsborough, One of
" his Majesty's Principal Secretaries of State, &c.
" &c. &c. On his Majesty's service."

Inclosed wherewith were nine lists, to the following purport:

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An abstract from the nine lists, sent to Lord Hillsborough.

N. B. All the following numbers refer to ships of the line of battle.

No. 1.	Contains a list of the ships of the line in commission 31st December, 1756, amounting to	— —	69
	exclusive of 4 guardships.		
No. 2.	A list of British ships, all new between 1756 and 1st of May, 1781, including Africa and Agamemnon, just then launched,	— —	107
No. 3.	A list of British-built ships repaired between 1756 and 1st May, 1781,		132
No. 4.	A list of French and Spanish ships captured, fitted and commissioned, from 1756 to 1st May, 1781,		22
No. 5.	A list of such of those 22 French and Spanish ships, as were repaired between 1756 and 1st May, 1781, amounting to	— — —	14
Grand total			<u>354</u>

There remains, as appears by the list, No. 7.

Fit for foreign service,	— —	45
Fit for Channel service,	— —	16
In doubtful condition,	— —	22
		<u>83</u>

1st May, 1781. Total 83

Which 83 being extracted from 354, shows the number of ships worn out in 24 years and four months, to be — — 271

No. 6.

No. 6. Contains Sir Edward Hawke's list of ships of the line, fit for actual service, 31st December, 1770, and proves them to have been the number of — — — — 80

No. 7. Is referred to above, and shows that Lord Sandwich's fleet consists only of 83 ships of the line, — 83

No. 8. Contains some remarks on ships in commission, that are unfit for service.

No. 9. Contains the names of eighty ships and sloops of war that have been lost, taken, sunk, or burnt, since the 30th of June, 1776.

There was also an abstract of the whole.

I have no doubt but that Lord Hillsborough did his duty in laying the above before the Privy Council, and took such measures as appeared necessary to his Lordship on the occasion; but why I never had any answer to it, the preceding and subsequent letters may perhaps give a reason.

No. XIV.

On his Majesty's service.

To Philip Stephens, Esq. Admiralty, London.

Alton, 3d December, 1781.

S I R,

I am excited to this address from the unfavourable news published in the London Gazette of Tuesday last; for it seems by the public prints, that people in general attribute the loss of the

army, and the late disgrace of his Majesty's arms
 in America, to the superiority of the fleets of the
 House of Bourbon, which opinion appears to
 have been publicly supported in Parliament by
 a Nobleman high in office; therefore, having it
 in my power to point out to the Lords Com-
 missioners of the Admiralty, how a very consider-
 able addition of *durable* capital ships may *assuredly*
 be made to his Majesty's fleet, to be in readiness
 for the service of the next Summer, I should
 esteem my unpardonable was I to omit any *proper*
 means in endeavouring to prevail on their Lord-
 ships to give a due attention to my labours on
this head. Perhaps their Lordships may say, I
 have been redundant on that subject. If so, I
 beg leave to answer with all possible respect, that
 I have taken a most solemn oath to his Majesty,
 by which, I esteem myself indispensibly obli-
 gated to serve *his interest, and that of his empire*
faithfully, and to the *very utmost* of my power. I
 will not enumerate the many losses and disad-
 vantages that the nation has sustained this war,
 through the want of a more numerous fleet, lest
 it should be supposed I mean to offer any disre-
 spect to their Lordships; but, it is from reflec-
 tions thereon, that I have been *impelled* to ad-
 dress their Lordships *so repeatedly*, though labour-
 ing under a *very bad state of health*, brought on me
 by intense application to the means of preserving
 the Royal Navy, &c. but I have thereby gained
 such knowledge, as if communicated to their
 Lordships, would enable them, in a reasonable
 time, to extinguish the flames of war, by speedily
 gaining such a fleet as would enable his Majesty's
 enemies to sue for peace, on such terms as would
 make

make Great-Britain still glorious in the eyes of all nations.

Let me entreat you, Sir, to beg their Lordships not to despise my labours, because they are those of a person in my humble situation. Both sacred and prophane history afford abundant proofs, that Divine Providence hath frequently been pleased to make very mean agents instrumental for bringing about great events; but I will omit the proofs in the first, and out of the multitude in prophane history, I will give you only one: "*The cackling of a flock of geese saved the CAPITAL of the ROMAN EMPIRE*"; and I can point out the most *reasonable* and *certain* means of extricating this empire from its difficulties, and demonstrate how his Majesty may assuredly triumph over all his *declared* enemies, more speedily than will be credited until it be manifested. Writing is now become such wearisome employ to me, that if their Lordships reject this offer, they may never have another of this import from me. Allow me to entreat your patience, Sir, while I add one very important, and I suppose rather an alarming circumstance, which may not have been fully weighed; namely, that from the 1st of January, 1757, to the 30th of September, 1781, twenty-four years and nine months, there have been worn out two hundred and seventy-one ships of the line, viz. sixty-nine in commission the 1st of January, 1757 (sixty of which were reported by the Navy Board to be in good condition) one hundred and seventy built since; one hundred and forty-two completely repaired; twenty-two captured, fitted and commissioned; fourteen of those completely repaired, making in the whole three hundred and fifty-four;
and

and now but eighty-three, *at most*, fit for service; and the condition of many of those, to my certain knowledge, is not to be depended on, for any length of time.

If we divide 271 by the above specified, it manifests a diminution of nearly eleven ships per year, *Communibus Annis*: but, if we estimate those in commission 1st January, 1757, and all those since repaired or captured, only as equal to half the number of new ships, those added to 107, built new since that æra, make 230, from which, please to deduct 83 (that is supposing all those 83 to be equal to new ships, though that is by no means the case) and there remains 148, which divided by the same time, gives a diminution of what is equal to, at least, six new ships of the line every year; but, all the efforts of the Navy Board, assisted by many private dock-yards, do not appear to have been able to make an increase equal to that decay, for I find no more than ten new ships launched (one of seventy-four guns, and nine of sixty-four) between the 20th of September 1779, and the 20th of September 1781; therefore the decays exceed the supplies.

I am, with due respect, Sir,

your most obedient humble servant,

ROBERT TOMLINSON.

A copy of this letter was sent by the General Post, addressed to Philip Stephens, Esq. Admiralty-Office, London, the 4th of December, 1781, "on his Majesty's service."

ROBERT TOMLINSON.

No answer has been given to it this tenth day of January, 1782, though it will doubtless be observed, that I neither asked fee nor reward, for my labours, which had nearly cost me my life.

ROBERT TOMLINSON.